

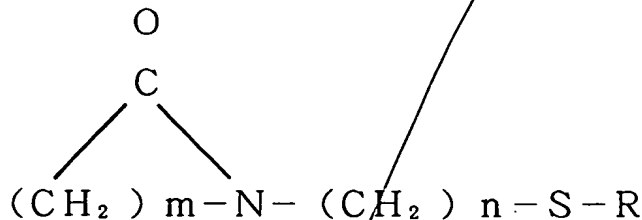
WHAT IS CLAIMED IS

EXTENT OF CLAIMS

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1. A preparation for transmucosal administration comprising a physiologically active peptide, at least admixed with an absorption promotor having absorption promoting ^{action} ~~action~~ for the physiologically active peptide on nasal mucosa or rectal mucosa and a compound having vasodilating activity.

2. The preparation for transmucosal administration according to claim 1 wherein the absorption promotor having absorption promoting action for the physiologically active peptide on nasal mucosa or rectal mucosa has the absorption promoting action with improved absorption rate of above 200 % on nasal mucosa or rectal mucosa as compared with a preparation without absorption promotor when insulin is used as the physiologically active peptide.

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3. The preparation for transmucosal administration according to claim 1 wherein the absorption promotor is one or more numbers thereof selected from the group consisting of salt of bile acid, salt of fusidic acid, salt of glycyrrhizic acid, salt of O-acyl-L-carnitine, phospholipid, non-ionic surface active agent, cyclodextrin, higher fatty acid, 1-alkyl-2-pyrrolidone derivative, 1-dodecylazacycloheptane-2-one, bacitracin, sodium azulenesulfonate and azacycloalkane derivative of the formula (1)



(1)

wherein R is an alkyl, m is an integer of 2 - 4 and n is an integer of 1 - 15, provided that R is an alkyl with a carbon number of 5 - 11 in case where n is 1 - 3.

4. The preparation for transmucosal administration according to claim 3 wherein salt of bile acid is (one or more) numbers thereof selected from the group consisting of sodium taurocholate, sodium glycocholate and sodium deoxycholate.

5. The preparation for transmucosal administration according to claim 3 wherein salt of fusidic acid is (one or more) numbers thereof selected from the group consisting of sodium fusidic acid and tauro-24, 25-dihydrofusidic acid.

6. The preparation for transmucosal administration according to claim 3 wherein salt of glycyrrhizic acid is (one or more) numbers thereof selected from the group consisting of salt of glycyrrhizic acid and disodium 3-succinyloxyglycyrrhizic acid (carbenixolon).

7. The preparation for transmucosal administration according to claim 3 wherein salt of O-acyl-L-carnitine is O-acyl-L-carnitine having C₈₋₁₈ acyl.

8. The preparation for transmucosal administration according to claim 3 wherein salt of O-acyl-L-carnitine is one or more numbers thereof selected from the group consisting of salt of O-octanoyl-L-carnitine, salt of O-lauroyl-L-carnitine and salt of

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0-palmitoyl-L-carnitine.

9. The preparation for transmucosal administration according to claim 3 wherein phospholipid is one or more numbers thereof selected from the group consisting of phosphatidylcholine (lecithin), lisophosphatidylcholine (lysolecithin) and lysophosphatidylglycerol.

10. The preparation for transmucosal administration according to claim 3 wherein non-ionic surface active agent is one or more numbers thereof selected from the group consisting of polyoxyalkylene higher alcohol ether, polyoxyalkylene alkylphenol and sucrose fatty acid ester.

11. The preparation for transmucosal administration according to claim 3 wherein non-ionic surface active agent is one or more numbers thereof selected from the group consisting of polyoxyalkylene lauryl and polyoxyalkylene (24) cholesteryl ether.

12. The preparation for transmucosal administration according to claim 3 wherein cyclodextrin is one or more numbers thereof selected from the group consisting of α -cyclodextrin, β -cyclodextrin, γ -cyclodextrin and dimethyl- β -cyclodextrin.

13. The preparation for transmucosal administration according to claim 3 wherein higher fatty acid is higher fatty acid of C₁₆₋₂₀.

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14. The preparation for transmucosal administration according to claim 13 wherein higher fatty acid of C₁₆₋₂₀ is one or more

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numbers of C₁₈ higher fatty acid selected from the group consisting of oleic acid, linoleic acid and linolenic acid.

15. The preparation for transmucosal administration according to claim 3 wherein 1-alkyl-2-pyrrolidone derivative is one or more numbers thereof selected from the group consisting of C₄₋₁₂ alkyl.

16. The preparation for transmucosal administration according to claim 15 wherein alkyl is one or more numbers thereof selected from the group consisting of butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl and dodecyl.

17. The preparation for transmucosal administration according to claim 3 wherein azacycloalkane derivative of the formul (1) is azacycloalkane derivative in which R is C₁₀ alkyl, m is 3 and n is 2. i.e. 1-[2-(decylthio) ethyl] azacyclopentane-2-one.

18. The preparation for transmucosal administration according to claim 1 wherein the absorption promotor is admixed with 0.01 - 5 weight % of the said preparation.

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19. The preparation for transmucosal administration according to claim 1 wherein the compound having vasodilating activity is one or more numbers thereof selected from the group consisting of calcium channel blocker of molecular weight 200 - 700, prostaglandin E1, isosorbide dinitrate and nitroglycerin.

20. The preparation for transmucosal administration according to claim 19 wherein calcium channel blocker is diltiazem hydrochloride, verapamil hydrochloride, bepridil hydrochloride, nifedipine hydrochloride, nicardipine hydrochloride and fasudil hydrochloride.

21. The preparation for transmucosal administration according to claim 1 wherein the compound having vasodilating activity is admixed with below 1/2 of minimum usual dose as an effective component of the said compound in the preparation for transmucosal administration.

22. The preparation for transmucosal administration according to claim 1 wherein molecular weight of the physiologically active peptide is 300 - 10,000.

23. The preparation for transmucosal administration according to claim 1 wherein the physiologically active peptide is selected from the group consisting of insuline, calcitonin, human PTH (1 - 34), calcitonin gene related peptide (CGRP), angiotensin II, vasopressin, desmopressin acetate, buserelin acetate, goserelin acetate, nafarelin acetate, leuporelin acetate, somatostatin, glucagon, oxytocin, secretin, LH - RH, ACTH, TRH, TSH, ANP, ~~or~~ derivatives containing synthetic or semisynthetic compound thereof, *and mixtures thereof.*

24. The preparation for transmucosal administration according to claim 23 wherein calcitonin is a compound selected from the group consisting eel calcitonin, salmon calcitonin, porcine calcitonin.

human calcitonin and chicken carcitonin.

25. The preparation for transmucosal administration according to claim 24 wherein eel calcitonin is ASU ¹⁻⁷ eel calcitonin (elcatonin).

Int 67 26. The preparation for transmucosal administration according to claim 23 wherein insulin is a compound selected from the group consisting human insulin, porcine insulin and bovine insulin.

a 27. The preparation for transmucosal administration according to claim ^a1 wherein the preparation for transmucosal administration is ~~at least one of the~~ preparation for administration in nasal mucosa, oral mucosa, pulmonary mucosa, rectal mucosa, vaginal mucosa or ocular mucosa.